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PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional)

SPLX.P0096

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on 5/10/06Signature Makou AliTyped or printed name Ali Makoui

Application Number

10/062,992

Filed

01/31/2002

First Named Inventor

Steven Teig

Art Unit

2167

Examiner

Kuen S Lu

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages may be provided.

I am the

- ☐ applicant/inventor.
- ☐ assignee of record of the entire interest.
See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.
(Form PTO/SB/96)
- ☐ attorney or agent of record.
Registration number _____
- ☒ attorney or agent acting under 37 CFR 1.34.
Registration number if acting under 37 CFR 1.34 45,536

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05/10/2006
Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

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Ali Makoui
Ali Makoui

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the application of:

Steven Teig, et al.

Serial No.: 10/062,992

Filing Date: 01/31/2002

For: **STRUCTURE FOR STORING A
PLURALITY OF SUBNETWORKS**

Examiner: Kuen S. Lu

Group Art Unit: 2167

REMARKS FOR PRE-APPEAL BRIEF REQUEST FOR REVIEW

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In response to the Office Action dated 02/10/2006, please consider the followings remarks.

In the Office Action, the Examiner rejected claims 1 and 3-21 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,134,705 to Pedersen et al. ("Pedersen") in view of U.S. Patent No. 6,009,251 to Ho et al. ("Ho"). The Examiner has also rejected claims 20-21 under 35 U.S.C. §103(a) as being unpatentable over Pedersen et al. ("Pedersen") in view of Ho and further in view of U.S. Patent No. 6,009,251 to Moreaux ("Moreaux").

I. Rejection of Claims 1 and 3-10 under §103(a)

Claims 3-10 are dependent directly or indirectly on claim 1. Claim 1 recites a data storage structure that stores a group of sub-networks. Each sub-network performs at least three output functions. The data storage structure stores each sub-network indexed by a parameter derived from all output functions of the sub-network.

Appellants respectfully submit that neither Pedersen nor Ho alone or in combination does disclose, teach, or even suggest such a data storage structure for at least the following reasons.

First, in the Office Action, the Examiner cited column 12, lines 4-9 of Pedersen for specifying “[a] data storage that stores a plurality of sub-networks”. The Examiner has specified that “Pedersen teaches comparing old and new un-synthesized sub-netlists which suggests the sub-netlists data structures are stored and retrieved.” [Emphasis added]. Appellants respectfully submit that neither in the cited paragraph nor anywhere else does Pedersen disclose, teach, or even suggest a data structure. The reference must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention. *See*, MPEP 2141 II (C). Appellants respectfully submit that when the cited reference does not even specify a data structure for storing sub-networks, it is inappropriate for the Examiner to specify that the reference suggests a data structure because it compares two sub-netlists.

Second, in the Office Action, the Examiner has correctly specified that Pedersen does not specify data storage structure to store sub-network and each network performs at least three output functions. The Examiner, however, has cited Figure 4A and column 11, lines 39-41 and column 1, lines 61-64 of Ho as specifying such a data structure. Appellants respectfully submit that the “flatten database 340” specified in the cited figure and paragraphs is for storing a netlist for a IC design flattened into the top directory and is not for storing each sub-network. Specifically, Pedersen specifies: “[i]n flattened mode, the entire received netlist for an IC design is flattened into the top directory by the flatten process 335 of Fig. 4A and stored into the flatten database 340.” *See*, Ho, column 11, lines 39-41.

Third, in the Office Action, the Examiner has cited Figures 2B and 4B, and column 14, lines 37-40 of Ho as specifying a sub-network that performs at least three output functions. Appellants respectfully submit that Figure 2B only shows connectivity for an IC design and does not specify which element generates an output (if any). Specifically, Ho in column 7, lines 6-9 specifies: “[n]etlist 150 of FIG. 2B contains data regarding the geometry and interconnections of the represented IC design and this data is stored within a specific format called the GDSII format.” The figure, therefore, shows the geometries and interconnections and not the outputs of sub-networks.

Fourth, in the Office Action, the Examiner has specified that the combined teaching of the Ho *and* Pedersen references specifies a data storage structure that stores each sub-network indexed by a parameter derived from all output functions of the sub-network. *See*, the Office Action, page 4, lines 4-6. The Examiner, however, has only cited column 7, lines 11-14 and 27-

36 of Ho and has not cited Pedersen to show that limitation. The Examiner has also quoted the following from the cited paragraphs: "where cell contains specific references to sub-cell design, including information on geometry, connectivity and inter-connections information, further, each parent sub-cell design that references other child sub-cell designs also contains information regarding the manner in which the child sub-cells are connected together and/or connected to any local structure of the parent sub-cell". *See*, page 4, lines 6-11 of the Office Action.

Appellants respectfully submit that Ho neither in the cited paragraphs and the statements quoted by the nor in anywhere else specify a data storage structure that stores each sub-network indexed by Examiner a parameters derived from all output functions for the sub-network. For instance, the cited paragraphs do not specify storing each sub-network indexed by a parameter. Also, the cited paragraphs do not specify a parameter derived from all output functions of a sub-network.

In view of the foregoing remarks, Applicants respectfully submit that the cited references do not anticipate or otherwise render claim 1 unpatentable. Given that claims 3-10 are directly or indirectly dependent on claim 1, Applicants respectfully submit that claims 3-10 are patentable over Pederson in view of Ho for at least the reasons that were discussed above in relation to claim 1. In view of the foregoing, Applicants respectfully request reconsideration and withdrawal of the §103(a) rejection of claims 1, and 3-10.

II. Rejection of Claims 11-21 under §103(a)

Claims 12-21 are dependent directly or indirectly on claim 11. Claim 11 recites a sub-network record management system that includes a data storage structure that stores a group of sub-networks. Each sub-network can perform at least three output functions. The data storage structure stores each sub-network indexed by a parameter derived from all output functions of the sub-network. The sub-network record management system also includes a data access manager that identifies and retrieves sub-networks from the data storage structure.

Appellants respectfully submit that neither Pedersen nor Ho alone or in combination does disclose, teach, or even suggest such a data storage structure for at least the following reasons. First, claim 11 specifies that the sub-network record management system also includes a data access manager that identifies and retrieves sub-networks from the data storage structure. Appellants respectfully submit that the Examiner has failed to identify how the cited references specify this limitation.

Second, in the Office Action, the Examiner cited column 12, lines 4-9 of Pedersen for specifying “[a] data storage that stores a plurality of sub-networks”. The Examiner has specified that “Pedersen teaches comparing old and new un-synthesized sub-netlists which suggests the sub-netlists data structures are stored and retrieved.” [Emphasis added]. Appellants respectfully submit that neither in the cited paragraph nor anywhere else does Pedersen disclose, teach, or even suggest a data structure. The reference must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention. See, MPEP 2141 II (C). Appellants respectfully submit that when the cited reference does not even specify a data structure for storing sub-networks, it is inappropriate for the Examiner to specify that the reference suggests a data structure because it compares two sub-netlists.

Third, in the Office Action, the Examiner has correctly specified that Pedersen does not specify data storage structure to store sub-network and each network performs at least three output functions. The Examiner, however, has cited Figure 4A and column 11, lines 39-41 and column 1, lines 61-64 of Ho as specifying such a data structure. Appellants respectfully submit that the “flatten database 340” specified in the cited figure and paragraphs is for storing a netlist for a IC design flattened into the top directory and is not for storing each sub-network. Specifically, Pedersen specifies: “[i]n flattened mode, the entire received netlist for an IC design is flattened into the top directory by the flatten process 335 of Fig. 4A and stored into the flatten database 340.” See, Ho, column 11, lines 39-41.

Fourth, in the Office Action, the Examiner has cited Figures 2B and 4B, and column 14, lines 37-40 of Ho as specifying a sub-network that performs at least three output functions. Appellants respectfully submit that Figure 2B only shows connectivity for an IC design and does not specify which element generates an output (if any). Specifically, Ho in column 7, lines 6-9 specifies: “[n]etlist 150 of FIG. 2B contains data regarding the geometry and interconnections of the represented IC design and this data is stored within a specific format called the GDSII format.” The figure, therefore, shows the geometries and interconnections and not the outputs of sub-networks.

Fifth, in the Office Action, the Examiner has specified that the combined teaching of the Ho and Pedersen references specifies a data storage structure that stores each sub-network indexed by a parameter derived from all output functions of the sub-network. See, the Office Action, page 5, last paragraph. The Examiner, however, has only cited column 7, lines 11-14 and

27-36 of Ho and has not cited Pedersen to show that limitation. The Examiner has also quoted the following from the cited paragraphs: "where cell contains specific references to sub-cell design, including information on geometry, connectivity and inter-connections information, further, each parent sub-cell design that references other child sub-cell designs also contains information regarding the manner in which the child sub-cells are connected together and/or connected to any local structure of the parent sub-cell". See, page 4, lines 6-11 of the Office Action.

Appellants respectfully submit that Ho neither in the cited paragraphs and the statements quoted by the nor in anywhere else specify a sub-network record management system that includes a data storage structure that stores each sub-network indexed by Examiner a parameters derived from all output functions for the sub-network. For instance, the cited paragraphs do not specify storing each sub-network indexed by a parameter. Also, the cited paragraphs do not specify a parameter derived from all output functions of a sub-network.

In view of the foregoing remarks, Applicants respectfully submit that the cited references do not anticipate or otherwise render claim 11 unpatentable. Given that claims 12-21 are directly or indirectly dependent on claim 11, Applicants respectfully submit that claims 12-21 are patentable over Pederson in view of Ho for at least the reasons that were discussed above in relation to claim 11. In view of the foregoing, Applicants respectfully request reconsideration and withdrawal of the §103(a) rejection of claims 11-21.

CONCLUSION

In view of the foregoing, it is submitted that all pending claims, namely claims 1 and 4-22, are in condition for allowance. Reconsideration of the rejections is requested. Allowance is earnestly solicited at the earliest possible date.

Respectfully submitted,

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Dated: 5/10/06

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